

CLAIMS

1. A method for manufacturing a ceramic substrate, comprising the steps of:

forming a conductive pattern through filling an intaglio with a
5 conductive paste;

forming an adhesive layer on a heat-resistant substrate;

heat-pressing the intaglio onto the adhesive layer;

removing the intaglio; and

forming a first assembly through stack an un-sintered green sheet to
10 cover the conductive pattern and through heat-pressing the un-sintered
green sheet.

2. The method of claim 1, further comprising the step of performing a binder-removing process and a sintering process to the first assembly.

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3. The method of claim 1 or 2, further comprising the steps of:

forming a via-conductor through forming a through-hole in the un-
sintered green sheet; and

connecting the conductive pattern to the via conductor.

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4. The method of claim 1, further comprising the steps of:

forming a plurality of the first assemblies through repeating said
steps of forming the conductive pattern, forming the adhesive layer; heat-
pressing the intaglio, removing the intaglio, and forming the first assembly;

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forming a second assembly through stacking the first assemblies.

5. The method of claim 4, further comprising the step of performing a minder-removing process and a sintering process to the second assembly.

6. The method of claim 4 or 5, further comprising the steps of:
5 forming a via-conductor through forming a through-hole in the un-
sintered green sheet; and
connecting the conductive pattern to the via-conductor.

7. A method for manufacturing a ceramic substrate, comprising the
10 steps of:

forming a conductive pattern through filling an intaglio with a conductive paste;

forming an adhesive layer on a sintered ceramic substrate;

heat-pressing the intaglio onto the adhesive layer;

removing the intaglio; and

forming a first assembly through stacking an un-sintered green sheet to cover the conductive pattern and through heat-pressing the un-sintered green sheet.

20 8. The method of claim 7, further comprising the step of performing a
binder-removing process and a burning process to the first assembly.

9. The method of claim 7 or 8, further comprising the steps of:
forming a via-conductor through forming a through-hole in the un-
25 sintered green sheet; and
connecting the conductive patterns to the via-conductor.

10. The method of any one of claims 7 to 9, further comprising the steps of:

forming a via-conductor through forming a through-hole in the sintered substrate; and

5 connecting the conductive pattern to the via-conductor.

11. The method of claim 7, further comprising the steps of:

forming a plurality of the first assemblies through repeating the steps of forming the conductive pattern, forming the adhesive layer, heat-pressing 10 the intaglio, removing the intaglio, and forming the first assembly; and

forming a second assembly through stacking the first assemblies and an un-sintered ceramic green sheet alternatively.

12. The method of claim 11, further comprising the step of 15 performing a binder-removing process and a sintering process to the second assembly.

13. The method of claim 11 or 12, further comprising the step of:

forming a via-conductor through forming a through-hole in the un- 20 sintered green sheet; and
connecting the conductive patterns to the via-hole conductor.

14. The method of any one of claims 11 to 13, further comprising the steps of:

25 forming a via-conductor through forming a through-hole in the sintered ceramic substrate; and

connecting the conductive pattern to the via-conductor.

15. A method for manufacturing a ceramic substrate, comprising the steps of:

forming a first conductive pattern through filling a first intaglio with a
5 conductive paste;

forming a first adhesive layer on a first heat-resistant substrate;

heat-pressing the first intaglio onto the first adhesive layer;

removing the first intaglio;

forming a first assembly through stacking an un-sintered green sheet
10 to cover the first conductive pattern and heat-pressing the un-sintered green
sheet;

forming a second conductive pattern through filling a second intaglio
with a conductive paste;

forming a second adhesive layer on a sintered ceramic substrate;

15 heat-pressing the second intaglio to the second adhesive layer;

removing the second intaglio; and

forming a second assembly through stacking the first assembly to
cover the second conductive pattern and heat-pressing the first assembly.

20 16. The method of claim 15, further comprising the step of
performing a binder-removing process and a sintering process to the second
assembly.

25 17. The method of claim 15 or 16, wherein the first intaglio and the
second intaglio are identical to each other.

18. The method of any one of claims 15 to 17, further comprising the

steps of:

forming a first via-conductor through forming a through-hole in the un-sintered green sheet; and

connecting at least one of the first and second conductive patterns to
5 the first via-conductor.

19. The method of any one of claims 15 to 18, further comprising the steps of:

10 forming a second via-conductor through forming a through-hole in the sintered ceramic substrate; and

connecting at least one of said first and second conductive patterns to the second via-conductor.